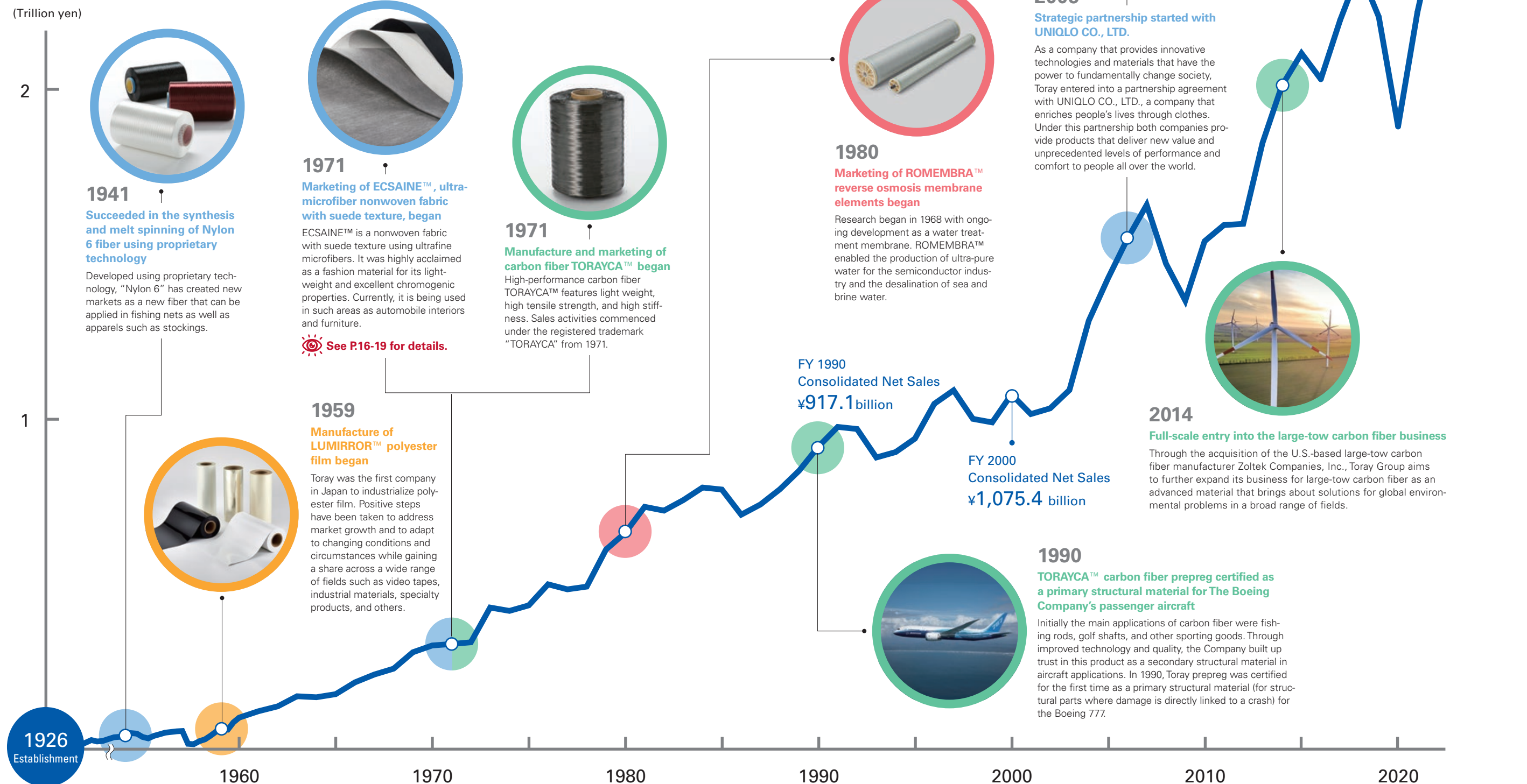


Toray Group Value Creation History

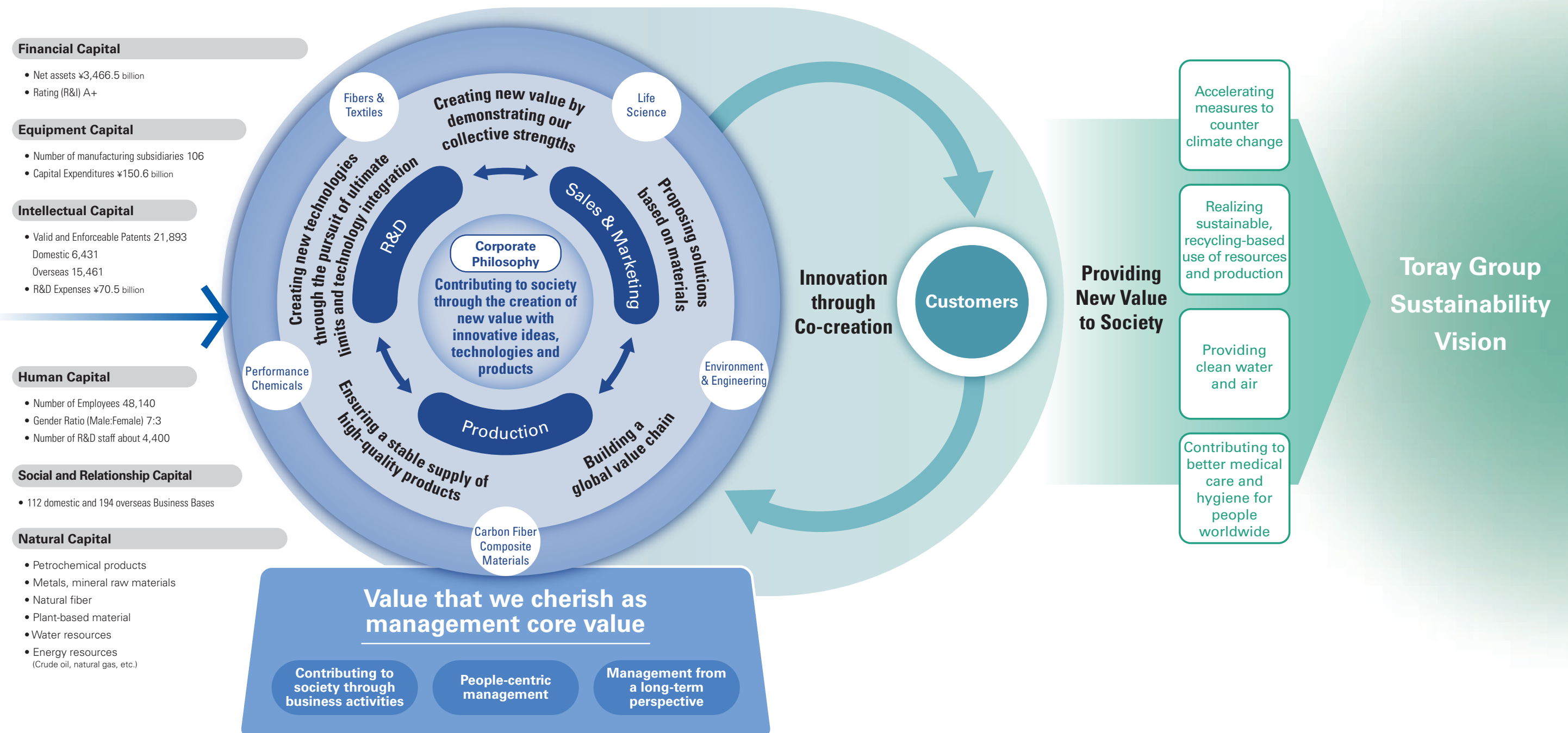
Toray Group began as a manufacturer of viscose rayon in 1926. On top of all three major synthetic fibers such as nylon, polyester, and acrylic, the Company has continued to develop innovative technologies while creating a host of advanced materials and high-added-value products in a broad range of films, chemicals, resins, electronic and information materials, carbon fiber composite materials, pharmaceuticals and medical products, water treatment, and environmental fields. With an eye toward how society will evolve in 2050 and how innovative technologies and advanced materials may be utilized as a driving force, we will adopt a long-term perspective toward enhancing our corporate value.



The Toray Group Value Creation Process

In a bid to realize its corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products,” Toray Group will **provide new value to society** through **a process of co-creation with customers, suppliers, and other parties** that make up the supply chain, starting at the materials stage, while promoting mutual cooperation in R&D, sales and marketing, and production, the

key strengths of Toray Group, based on the core values of “contributing to society through business activities,” “people-centric management,” and “management from a long-term perspective.” At the same time, we will work to realize the four perspectives of the world as outlined in the Toray Group Sustainability Vision.



Beyond the Material

Taking on the challenge of becoming a material brand that enhances value together with its customers

Developing Ultra-microfiber Nonwoven Fabric with Suede Texture that Surpasses Natural Materials

In 1970, the late Dr. Miyoshi Okamoto* of Toray developed an ultra-microfiber nonwoven fabric with suede texture by utilizing the Company's proprietary ultrafine microfiber production technologies.

*Miyoshi Okamoto: Joined Toray in 1960 and served as General Manager of Fibers & Textiles Research Laboratories, Managing Director of the Okamoto Laboratory, Chairman of Toray Fibers and Textile Research Laboratories (China), and as advisor to the Technology Center. A Doctor of Engineering, Dr. Okamoto received numerous awards, including the Prime Minister's Award (National Inventor Commendation), the Wallace H. Carothers Award (UK), the Medal with Purple Ribbon, and the Leonardo Award (Italy).



Left photo: Cross-sectional view of uniform ultrafine fibers produced by sea-island conjugate spinning (image)
Right photo: The diameter of the ultrafine fiber developed by Toray (left in the photo) is 1/50 of a hair (right in the photo).

Utilizing raw yarn with a cross-sectional area that is 1/2500 of a human hair, the Company achieved a material that while having an appearance, feel, and texture that is very close to that of natural suede leather such as deerskin, at the same time, is lightweight and has outstanding colorability. After establishing its brand image as a luxury material in Europe and the U.S., the Company devised a strategy for re-importing into the Japanese market and debuted the material at the Paris Haute Couture Collection for fall in July



The Paris Haute Couture Collection, 1970

1970. At that time, TIME Magazine praised the material as "the most revolutionary material since Adam and Eve's fig leaf," and it was quickly adopted by New York's top designers, causing a huge sensation.

Trademarked in Japan as Ecsaine™ in 1971, production of the new material began in the same year. At the same time, amid growing global interest in animal welfare, the material's feel and texture which is extremely close to natural were highly praised in the U.S. market, a contract was concluded with a major textile manufacturer Springs Mills, Inc., and sales launched under the Ultrasuede™ brand. From then on, sales grew steadily through continuous improvements to the material as a luxury clothing material, and by 1974 sales had increased to nearly five times the original level.

In the meantime, in Europe in 1974, the Company established Iganto S.p.A. (now Alcantara S.p.A.) as a joint venture with Anic S.p.A. of Italy, a company with which Toray had signed several polyester-related technology export contracts, and concluded a contract to manufacture and sell products under the Alcantara™ brand. In 1975, production began at the company's Nera Montoro plant in the vicinity of Rome. Alcantara™ was accepted by European consumers, and Iganto steadily expanded its business.

In this way, our initial brand marketing consisted of three brands developed based on three areas: Japan, the U.S., and Europe. Each brand was recognized as a high-added-value luxury clothing material and established a solid market position. Thereafter, the material's applications expanded greatly ranging from home interiors and automotive interiors as well as shoes and bags to home appliances. The material underpinned Toray's textile business particularly from the mid-1970s to the early 1980s, when performance stagnated during the structural recession that followed the oil crisis.

Two-brand Strategy: Made in Italy and Made in Japan

Afterwards, market globalization began to accelerate against the backdrop of the end of the Cold War, the spread of the internet and the international division of labor in supply chains, etc. In response to the increasing need for the globalization of markets and customers of ultra-microfiber nonwoven fabric with suede texture, Alcantara™ and Ultrasuede™ were positioned as global brands in 2013. A two-brand strategy was adopted in which each brand promotes its own brand value based on a different concept. Treating Alcantara™ as "Made in Italy" and Ultrasuede™ as "Made in Japan," the Company decided to move away from marketing its brands based on the areas of Japan, the U.S., and Europe, to clearly differentiating its products and concepts based on production locations, rolling out the two brands to all regions and applications around the world. Today, the Ecsaine™ brand continues to be used for certain industrial material applications.

ALCANTARA®

Having changed its name from Iganto S.p.A. when it shifted to a two-brand strategy, Alcantara S.p.A. established an integrated production facility in Italy, from spinning to dyeing and finishing, and committed itself to marketing through technology and know-how rooted in the Italian regional brand, production, research and development,



sustainability, and tailor-made solution proposals. Based on its characteristic Italian management, Alcantara™ has established a unique position among textile materials as a European luxury brand that is recognized worldwide.

ultrasuede®

Meanwhile, Ultrasuede™, which is made in Japan, is a brand that had grown large in the U.S. A decision was made to conduct sales in all regions, including China, Asia, and Europe, as well as in the U.S. and Japan.

In conjunction with Toray's corporate brand, we developed a strategy to promote innovative and diverse product development using cutting-edge technology, as well as the cool and trustworthy image of "Made in Japan" as the brand identity. In recent years, we have also been strengthening our appeal as a sustainable material through the development and sale of products that use recycled and bio-based raw materials.



Both Alcantara™ and Ultrasuede™ conduct business activities based on their respective brand identities, such as building supply chains, product development, and promotion, and undertaking marketing activities in collaboration with our business partners. We decide all strategies based on our ideal vision for each brand and develop our business based on those strategies.

Burgeoning Demand Also in the Automobile Industry

In recent years, due to the emphasis on sustainability as well as animal protection and vegan trends, Alcantara™ and Ultrasuede™ have been attracting attention as alternative materials to natural leather. Demand is especially increasing in the automotive market. The spread of xEVs has created a demand for lighter materials. As consumers view the interior of a car as a living space rather than simply a travel space, they also want to feel more comfortable and at ease inside. Demand for these materials is thus growing around the world, as they are suitable

for seamless, luxurious designs. Furthermore, in terms of sustainability, Alcantara became the first Italian company to receive carbon neutral certification in 2009. In 2015, the Ultrasuede™ brand launched the world's first product using plant-based polyester as a part of its raw materials. This is gaining increasing recognition from customers as a material that not only combines luxury, fine quality and functionality but is also sustainable.

Ultrasuede™ Value Creation

Clarification of brand position through internal branding

Despite promoting a two-brand strategy, the brand positioning of “Made in Japan” Ultrasuede™ was initially unclear compared with “Made in Italy” Alcantara™. The manager at the time and several sales staff members therefore got together and launched the Ultrasuede Vision Meeting in 2014. At the meeting, the participants first discussed their current understanding of Ultrasuede™, such as “What do we like about it?,” “What do we feel proud of?,” and “What aspects of it do customers find valuable?,” and then considered the components of brand value based on what they personally felt the most. As these discussions became more heated, the number of participants in the Vision Meetings increased, and the content of the discussions was refined. Ultimately, in 2018, we summarized the content as five values (see below), and defined our vision beyond these values as “To enrich society through empowered creativity and materials evolution. We are committed to our values.” As a result of the vision meetings, which took about three years to complete, the content was understandable to all members, and a bottom-up sense of ownership was fostered that “a brand is not something that is given to you, but something you create for yourself,” enabling everyone to move forward in the same direction.

To enrich society through empowered creativity and materials evolution.

We are committed to our values:

- Ultrasuede™ as Toray's leading brand
- Enrich society for the next generation
- Sharing Japanese quality with the world
- Expansion through technological innovation
- Enhancing our customers' value alongside Ultrasuede™

Evolution into sustainable products in which plant-based raw materials are used

As mentioned above, the Company decided to develop Ultrasuede™ products in which some plant-based raw materials are used to increase value from a sustainability perspective. One of the major targets is for home interior applications such as sofas in North America. Despite having been well received by customers for many years for its rich color variations of approximately 90 colors, it was necessary to further increase its value from the perspective of sustainability by using plant-derived Ultrasuede™. Actually, as we proceeded with development, we were able to create a product that had the same texture, soft



Sofa made of Ultrasuede™BX

feel, and strength properties as the conventional product, but found that we could not reproduce the same color using the same dyes as before. We overcame this challenge by working with a dye factory to carefully match each color and are now able to sell Ultrasuede™BX, for which the proportion of plant-based raw materials has been increased to 30%. We would like to further increase this ratio in the future.

Value co-creation with Lexus, a luxury car brand

Among the dozen or so types of Ultrasuede™ products, Ultrasuede™BX has a supple texture and frictional strength that makes it suitable for use not only in sofas and car seats but also in fashion. While proposing Ultrasuede™BX and continuing activities to collect customer feedback about their impressions, challenges, and expectations with regard to sustainability, a new initiative was launched with Lexus, a luxury car brand of Toyota Motor Corporation, which has already adopted Ultrasuede™.

In developing its first battery electric vehicle (BEV), the



Lexus RZ interior made of Ultrasuede™BX

Lexus RZ, the company's interior concept for the car was “to create a clean, wide-open, welcoming space.” As a material that in addition to possessing the appropriate texture is also environmentally friendly, Ultrasuede™BX was used for the first time in car seats and very highly rated by the Lexus development team, who called it “the perfect material that combines luxury and durability with environmental friendliness.”

Through Ultrasuede™, Toray is proactively proposing to customers the use of plant-based raw materials, allowing them to play a role in reducing petroleum usage and CO₂ emissions. At the same time, the Company is promoting the high-added-value of this sustainable material so that customers can not only be satisfied with the feel of the final product but also increase their satisfaction in terms of consideration for the global environment.

Five-Fold Increase in Brand Value in Five Years

The Ultrasuede Department has been constantly discussing the Five Values and Vision and continuing activities designed to improve its brand value. To reassess the current status of the brand, we conducted an Ultrasuede™ brand survey in 2017. This survey involved interviewing internal stakeholders, including members from overseas and people in the main applications and industries (automotive, fashion, home interiors) in which Ultrasuede™ is deployed with regard to brand awareness and image, and producing in visual form (quantifying) the brand value based on sales volume and other factors. We re-measured the results of our branding and sales activities at the end of FY 2022. As a result, we were able to confirm that brand value had increased

approximately five-fold through strengthened internal branding, expanded sales for each application, and the resultant increase in awareness. Concerning future challenges in further improving brand value, we found that end consumers (=people) have not yet fully understood “what the brand means and how it makes them feel,” and we are continuing to discuss this as a new theme at the Vision Meetings. Our efforts to improve the brand value of Ultrasuede™ have no end-point. While continuing to listen sincerely to our customers' feedback, we will aim to remain a brand that can contribute and “enrich society through empowered creativity and materials evolution,” as adopted for our brand vision.



Eugenio Lolli

CEO and General Manager
of Alcantara S.p.A.

Combining “Made in Italy” craftsmanship and technology, Alcantara™ has become a global brand in the luxury sector. What is meant by “Made in Italy” here is a technically advanced product made with Italian craftsmanship. Our commitment to quality, passion, creativity and sustainability have earned us a worldwide reputation and unparalleled trust in a wide range of high-end markets, including automotive, interior design, fashion, accessories and art. In recent years,

demand for this material in the automotive industry has been increasing, and as a partner to Ferrari, BMW, Maserati and McLaren, we are involved in their projects and product development, exploring possibilities beyond the limits of conventional materials. Alcantara™ has also become a source of inspiration for many artists and designers.

At the same time, we are working to increase the value of the Alcantara™ brand through management that places importance on sustainability. With particular regard to the environment, in 2009, Switzerland became the first European company to obtain carbon neutral certification, measuring the carbon dioxide emissions from its business activities and offsetting them using carbon credits. Although carbon credits are not a final solution to environmental problems, we believe that they are a useful tool that can accelerate efforts to address climate change beyond our value chain and contribute to reducing global greenhouse gas emissions.